

# CHAPTER 1

## THE FAIRFAX COUNTY SPECIAL INSPECTIONS PROGRAM

### INTRODUCTION

The Fairfax County Special Inspections Program (formerly called the Critical Structures Program) was established by the Fairfax County Board of Supervisors in 1973, after the collapse of a 26-story concrete structure under construction, to monitor high-rise construction projects in Fairfax County. Since 1973, the Program has evolved to encompass all major commercial construction projects. The Special Inspections Program is administered by the **Fairfax County Critical Structures Section (FCCSS)** of the Commercial Inspections Branch of the Division of Inspection Services in the Department of Environmental Management (DEM).

Special Inspections were first incorporated into the BOCA National Building Code (BNBC) and adopted by the Virginia Uniform Statewide Building Code (VUSBC) in the 1990 edition. In the 1996 edition, effective April 15, 1997, revisions have been made to the requirements for Special Inspections in the BNBC and the VUSBC.

This document, “**Special Inspections: Implementation in Fairfax County/1996 Edition**”, hereafter called the “**Special Inspections Document**”, implements the requirements of BNBC Section 1705.0: “*Special Inspections*”, as amended by the VUSBC. The Special Inspections Document contains technical requirements of the VUSBC and its referenced standards, the policies and procedures underpinning the Special Inspections Program in Fairfax County, and descriptions of the roles and responsibilities of all parties involved in special inspections. **The Special Inspections Document is intended to be used in conjunction with the VUSBC.** Construction for which a permit application is submitted after April 15, 1997 shall comply with the provisions of this Special Inspections Document, except when *construction documents* for proposed construction were substantially complete prior to the above date and a permit application is submitted within one year after the above date. In such cases, construction shall comply with either the provisions of this Special Inspections Document or the provisions of the Special Inspections Manual/1993 Edition.

The Special Inspections Program is based on the engineering and industry standards adopted by the Virginia Board of Housing and Community Development as a part of the VUSBC. These standards are promulgated by nationally recognized organizations such as the American Iron and Steel Institute (AISI); the American Institute of Steel Construction (AISC); the Portland Cement Association (PCA); the National Concrete Masonry Association (NCMA); the American Concrete Institute (ACI) and the Brick Institute of America (BIA). The requirements for special inspections and materials testing contained in the VUSBC and these standards can be categorized as follows:

- Inspections and testing to ensure adequacy of the fabrication process, e.g., quality of pre-manufactured steel beams.
- Inspections and testing to ensure adequacy of construction materials and their installation, e.g., strength of cast-in-place concrete.
- Inspections and testing to ensure adequacy of site construction techniques, e.g.,

protection of concrete during cold weather periods, quality of field welding of structural connections, etc.

The above standards do not specify who should perform special inspections. The VUSBC gives localities in the Commonwealth two options: utilize municipal code enforcement personnel; or allow a firm independent of the contractor to provide required services. In creating the Special Inspections Program, the latter alternative was chosen for several reasons:

- This alternative provides scheduling flexibility and minimizes delays during the construction process. A contractor does not have to wait for County inspectors to proceed with each stage of construction.
- With the increased level of inspection services provided by a licensed professional, the probability of structural failure is reduced.
- Owners realize cost savings by retaining the engineering firm they deem most qualified to respond to unforeseen circumstances, abide by the owner's construction schedule, and provide special inspection and testing services. The cost of the inspection and testing program is borne directly by the owners of buildings rather than the County.

The purpose of the Special Inspections Document is to:

- Clearly define the responsibility of all parties.
- Standardize code application.
- Provide for an orderly and systematic approach for updating standards which apply to the Special Inspections Program.
- Ensure that modifications to the Program are uniformly applied throughout the County.

The Special Inspections Document employs a system of chapters or procedural outlines identifying the purpose, responsibility, time requirements, and scope of various activities. The Special Inspections Document shall be employed throughout the life of the project and a copy shall be available at the job site office from the time of the **FCCSS** preconstruction meeting through final inspections prior to occupancy.

- At the preconstruction meeting, parties to the meeting shall sign an acknowledgment of the *Statement of Special Inspections* (SSI) which identifies the special inspections requirements for the project.
- The provisions of this Special Inspections Document do not relieve any participant from the proper performance of work according to contracts, plans, specifications, the VUSBC and the applicable federal and state safety regulations.

Modifications to the Special Inspections Program are issued on an as-needed basis:

- Proposed modifications shall be advertised for public comments.
- Each page shall carry the date of issue as a means of identification. Modifications to the Special Inspections Document resulting from VUSBC code changes shall become effective immediately upon issuance.
- A cover letter transmitting the new or revised pages, chapters and Table of Contents

shall clearly identify the implementation date and shall indicate where the modifications are to be inserted into the Special Inspections Document.

### **THE SPECIAL INSPECTIONS ENGINEER OF RECORD**

Under the Special Inspections Program, the **Owner** of a building or the **Owner's** duly authorized representative shall employ an independent registered professional engineer. The professional engineer, referred to as the ***Special Inspections Engineer of Record (SIER)***, provides special inspections as required herein. The role of County staff is to ensure that the work of the **SIER** and the *Inspection and Testing Agency* supervised by the **SIER** is conducted in compliance with the requirements of the Special Inspections Program and this Special Inspections Document.

The **SIER** has the responsibility to ensure that special inspections are conducted in accordance with and meet the requirements of BNBC Section 1705.0 as amended by the VUSBC. At the completion of the project, but prior to issuance of a *Non-Residential Use Permit* (Non-RUP), the **SIER** must submit a *Final Report of Special Inspections*.

